

SECTION II: REMARKS

A. Summary of Amendments

Independent claims 4, 7, 16, and 19 have been amended herewith to further clarify various steps as occurring “directly.” The preamble of each of these claims previously recited “direct wireless delivery,” and each of the claims further referred to wireless delivery of multimedia messages directed to a user agent, but the amendments made herein further clarify the direct nature of various steps. Direct delivery or communication of information is supported by the originally-filed disclosure, for example, at pages 4, 6, 7, and 8, as well as the original figures. No new matter within the meaning of 35 U.S.C. 132(a) has been introduced by the foregoing amendments.

B. Response to Claim Rejections Under 35 U.S.C. 103(a)

The December 11, 2009 Office Action contained numerous rejections under 35 U.S.C. 103(a), including:

- a rejection of claims 4, 2, 5, 6, 16, 14 and 17-18 as being unpatentable for obviousness over U.S. Patent No. 7,218,919 to Vaananen (hereinafter “Vaananen”) in view of U.S. Patent No. 6,885,871 to Caloud (hereinafter, “Caloud”);
- a rejection of claims 7-9, 12, 19-21, and 24 as being unpatentable for obviousness over Vaananen in view of 3GPP TS 23,140 v4.4.0 (2001-09) (3rd Generation Partnership Project; Technical Specification Group Terminals; Multimedia Messaging Service (MMS); Functional description; Stage 2 (Release 4)” (hereinafter “3GPP MMS”); and
- a rejection of claims 10-11 and 22-23 as being unpatentable for obviousness over Vaananen and 3GPP MMS, further in view of Caloud.

Such rejections are traversed for the reasons set out below.

1. Law Regarding Obviousness Rejections

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP §2143.03. Furthermore, it is fundamental to a proper rejection of claims under 35 U.S.C. § 103 that an examiner must present a convincing line of reasoning supporting the rejection¹. The Supreme Court affirmed the validity of such approach, stating that “**there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.**” *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385, 1396 (2007). In *KSR*, the Supreme Court further confirmed that **references that teach away from the invention are evidence of the non-obviousness** of a claimed invention², and reaffirmed the principle that a factfinder judging patentability “should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.”

Following *KSR*, the Federal Circuit held that although “rigid” application of the “teaching, suggestion, or motivation” (“TSM”) test for obviousness is improper, **application of a flexible TSM test remains the primary guarantee against improper “hindsight” analysis**, because a flexibly applied TSM test ensures that the obviousness analysis proceeds on the basis of evidence in existence before time the application was filed, as required by 35 U.S.C. § 103³.

In considering a reference for its effect on patentability, the reference is required to be considered in its entirety, including portions that **teach away** from the invention under consideration. Simply stated, the prior art must be considered as a whole⁴. “It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of

¹ MPEP 2144 (“Sources of Rationale Supporting a Rejection Under 35 U.S.C. 103”), citing *Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985).

² *KSR*, 82 USPQ2d at 1395, 1399

³ *Ortho-McNeil Pharm. Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 86 USPQ2d 1196, 1201-02 (Fed. Cir. 2008).

⁴ *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) (emphasis added); MPEP § 2141.02.

ordinary skill in the art⁵.” The Federal Circuit and its predecessor court have repeatedly held that **if references taken in combination would produce a ‘seemingly inoperative’ device, then such references teach away from the combination** and cannot serve as predicates for a *prima facie* case of obviousness⁶.

A suggestion to combine references **cannot require substantial reconstruction or redesign** of such references, **or a change in basic operating principles** of a construction of a reference, to arrive at the claimed invention⁷.

2. Disclosure of Vaananen

Vaananen discloses a wireless network system that enables wireless delivery of audio and/or video messages from a first user agent to a second user agent, and use of a lookup server to enable retrieval of a telephone number or an IP address of a recipient.

In the Final Office Action dated December 11, 2009 the examiner conceded that Vaananen fails to disclose the following elements recited in Applicants’ claims:

- an international mobile subscriber identity (IMSI) address⁸;
- a home location register (HLR)⁹; and
- a first MMSE that is different from a second MMSE, and communication between two MMS servers.¹⁰

3. Disclosure of Caloud

Caloud discloses use of a communications gateway 128 for permitting communications with one or more mobile terminals 108. The communications gateway 128 includes a microprocessor 129, interface circuits 130 for interfacing with a GSM

⁵ *Application of Wesslau*, 353 F.2d 238, 241 (C.C.P.A. 1965); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve*, 796 F.2d 443, 448 (Fed. Cir. 1986), cert. denied, 484 U.S. 823 (1987).

⁶ *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 60 USPQ2d 1001, 1010 (Fed. Cir. 2001); *Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353, 52 USPQ2d 1294, 1298 (Fed. Cir. 1999) (proposed combination of references that would be inoperable for intended purpose supports teaching away from combination); *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (inoperable modification teaches away); *In re Spinnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969) (references teach away from combination if combination produces seemingly inoperative device)

⁷ *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (C.C.P.A. 1959).

⁸ December 11, 2009 Office Action, page 5.

⁹ December 11, 2009 Office Action, page 7.

¹⁰ December 11, 2009 Office Action, page 9.

network 118, interface circuits 131 for interfacing with an Internet network 106, program memory 132, a memory 151 to register a public Internet address of the gateway, communications means allocation memory 133, and access control memory 134, with elements 129 to 134 connected through a bus 135¹¹. It is clear that Caloud's communications gateway 128 does not constitute a cell network, since Caloud states that "the gateway 128 ... comprises means to get connected and communicate with the cell network 118." Rather than disclosing direct wireless delivery of communications between devices (as embodied in Applicants' claims), mobile device communications according to Caloud's system are routed "through the communications gateway 128¹²." Utilization of a communications gateway according to Caloud for directing communications between devices contradicts Applicants' disclosure and claims¹³.

4. Disclosure of 3GPP MMS

3GPP MMS discloses architecture and operation of MMS networks. Such architecture **requires** use of a "MMS Relay/Server responsible for storage and handling of incoming and outgoing messages and for the transfer of messages between different messaging systems¹⁴." The mandatory nature of such a MMS Relay/Server is noted at page 18 of 3GPP MMS, which states: "[w]hen a user intends to send an MM to one or several destinations the MM shall be submitted to the originator MMS Relay/Server." The routing function of the MMS Relay/Server is further emphasized at page 19 of 3GPP MMS, which states:

¹¹ See Caloud, col. 6, lines 27-34.

¹² See Caloud, col. 6, lines 56-56-62, referring to a mobile terminal sending and/or receiving communications "through the communications gateway 128."

¹³ See, e.g., Application, pages 3-4: "The conventional ways of delivering MMs between different user agents in the same or different MMSEs, as illustrated above, suffer from serious drawbacks. A **main drawback is that it wastes valuable network resources**, particularly with respect to MMS relay/servers **since the MMS relay/servers are required to process and forward voluminous MMs exchanged among numerous MMS user agents**. ... [I]t requires high performance servers with a very large storage capacity since MMs are typically very large in size. This will add considerable costs for the MMS service provider to deploy and maintain the network. Therefore, there is a need to provide a wireless network system for efficiently delivering MMs that not only saves the valuable network resources, but also speeds up delivery of the MMs between two MMS user agents."

¹⁴ 3GPP MMS, page 13.

“Upon reception of an MM from an originator MMS User Agent ... [a] **MMS Relay/Server**:

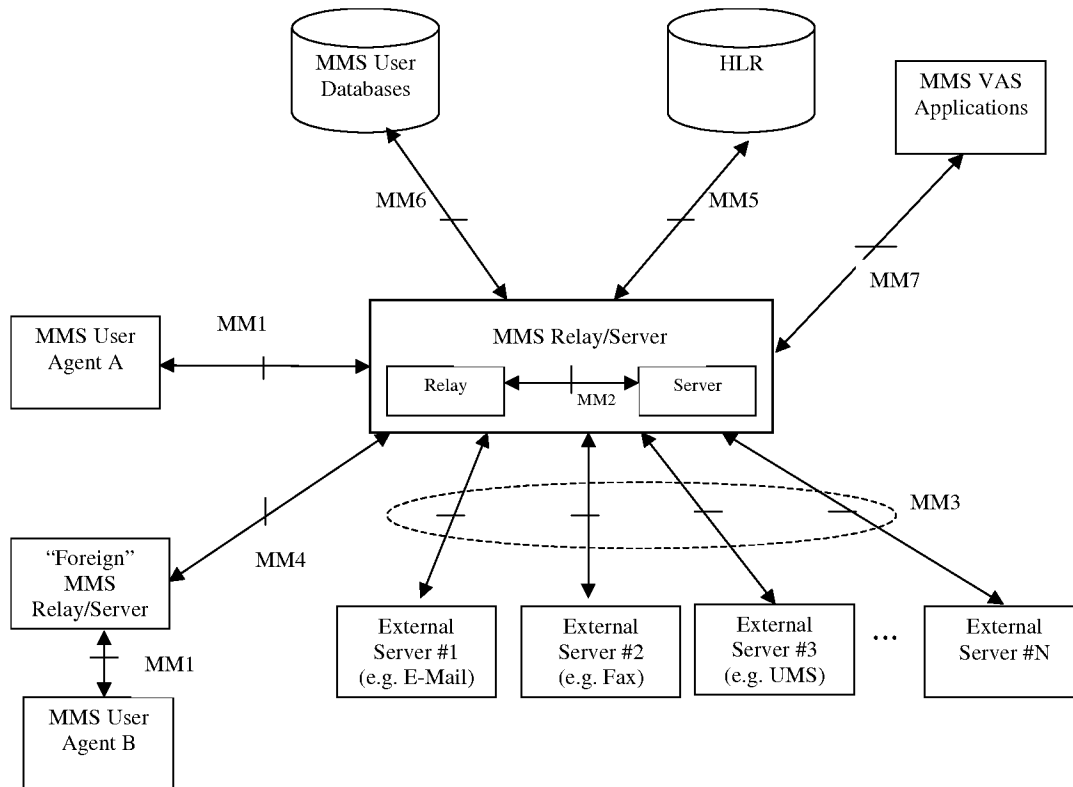
* * *

- is responsible for **retaining the MM until the earliest desired time of delivery**, if the optional feature of earliest time of delivery is supported by the originator MMS Relay/Server. If this feature is not supported then the MM is immediately routed forward, [and]

* * *

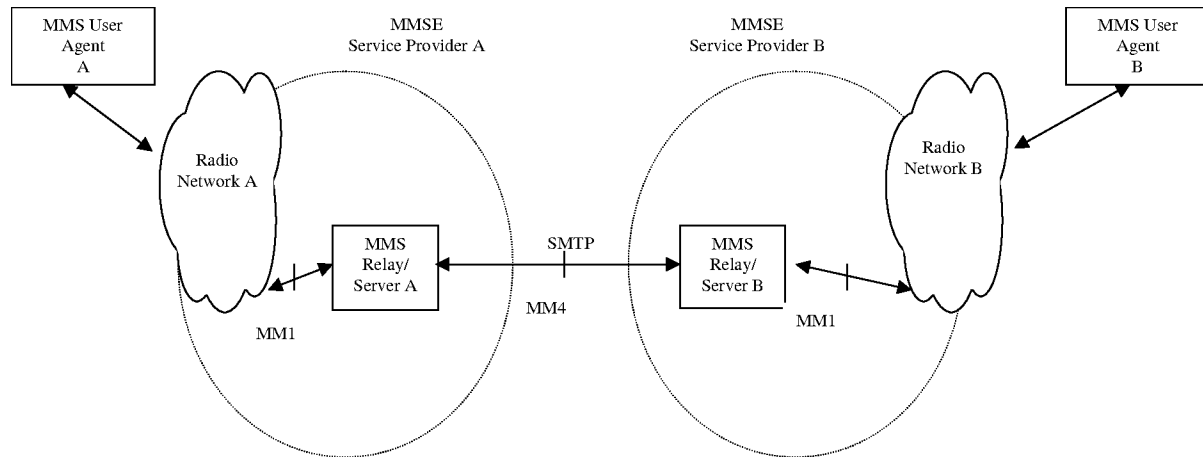
- is responsible to **route the MM towards the MM recipients”**

MMS Reference Architecture consistent with the foregoing text is disclosed in 3GPP MMS at Figure 4 thereof, as reproduced below.



The foregoing excerpts from 3GPP MMS indicate that the MMS Relay/Server provides a primary message storage and routing function, and that **all messages must be routed through a MMS Relay/Server.**

3GPP MMS further discloses that messages may be transferred between multiple MMSE's, with reference to Figure 5 thereof, as reproduced below.



The foregoing Figure of 3GPP MMS again relies upon a MMS Relay/Server within each MMSE to provide a primary message routing and storage function.

The foregoing rejections are discussed below.

5. Patentable Distinctions of Claims 4, 2, 5, 6, 16, 14 and 17-18 Over the Cited Art

In the Final Office Action dated December 11, 2009, claims 2, 4, 5, 6, 16, 14 and 17-18 were rejected under 35 U.S.C. 103(a) as being unpatentable for obviousness over U.S. Patent No. 7,218,919 to Vaananen (hereinafter "Vaananen") in view of U.S. Patent No. 6,885,871 to Caloud (hereinafter, "Caloud"). Such rejections are inapposite to Applicants' claims.

In the Final Office Action, the examiner alleged that Vaananen discloses a wireless network system that enables direct wireless delivery of a multimedia message from the first multimedia messaging service (MMS) user agent to a second MMS user agent. In the same document, the examiner admitted that Vaananen fails to disclose use of an international mobile subscriber identity (IMSI) address, a home location register

(HLR), or a first MMSE that is different from a second MMSE with communication between two MMS servers.

a. The Cited Art Fails to Disclose Direct Information Transfer as Required by Numerous Steps of Applicants' Claims

In the Final Office Action dated December 11, 2009, the examiner alleged:

“There is no limitation about ‘direct’ delivery in the obtaining means [recited in Applicants’ claim 4]. Caloud does not teach away from any wireless network system that enables **direct** wireless delivery of a multimedia message from a first multimedia messaging service (MMS) user agent to a second MMS user agent) and from means for forwarding the obtained Internet address to the first MMS user agent to **enable the first MMS user agent to wirelessly deliver the multimedia message directly** to the second MMS user agent using the obtained Internet address.¹⁵

Applicants respectfully disagree with the foregoing allegations made by the examiner. First, Applicants’ claim 4 specifically relates to a wireless network system “that enables **direct wireless delivery** of a multimedia message from a first multimedia messaging service (MMS) user agent to a second MMS user agent” in the preamble thereof, and further recites the feature “to enable the first MMS user agent **to wirelessly deliver the multimedia message directly** to the second MMS user agent using the obtained Internet address” in connection with the means for forwarding. The foregoing language (which was present in claim 4 prior to issuance of the December 11, 2009 Office Action) demonstrates that claim 4 included direct delivery steps. Similar direct delivery recitations were present in Applicants’ other independent claims.

Moreover, Applicants’ independent claims have been amended herewith to include numerous direct delivery recitations as part of the obtaining means.

In the March 2, 2010 Advisory Action at page 2, the examiner stated:

“As indicated in the final office action, Caloud teaches means for sending the MSISDN to a core network, means for obtaining an international mobile subscriber identify (IMSI) address corresponding to the MSISDN from the core network, means for sending the obtained IMSI address to

¹⁵ December 11, 2009 Office Action, page 3.

the core network, and means for obtaining the Internet address corresponding to the IMSI from the core network. **Since the limitations do not specify** sending the MSISDN to a core network, obtaining an IMSI address corresponding to the MSISDN from the core network, sending the obtained IMSI address to the core network, and obtaining the Internet address corresponding to the IMSI from the core network **“directly,”** Caloud meets the requirement.”

All of Applicants’ independent claims have been amended herewith to clarify various steps as occurring “directly.” See, e.g., the following passages of Applicants’ amended independent claims 4, 7, 16, and 19:

Claim 4: “wherein the obtaining means includes: means for sending the MSISDN directly to a core network, means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN directly from the core network, means for sending the obtained IMSI address directly to the core network, and means for obtaining the Internet address corresponding to the IMSI directly from the core network.”

Claim 7: “means for forwarding the request directly to the second MMS server” ... “means for forwarding the obtained Internet address of the second MMS user agent directly to the first MMS server,” “wherein the first MMS server forwards the obtained Internet address received from the second MMS server directly to the first MMS user agent to enable the first MMS user agent to wirelessly deliver the multimedia message directly to the second MMS user agent using the obtained Internet address.”

Claim 16: “wherein step (b) [namely, obtaining an Internet address of the second MMS user agent directly from a core network...] includes: (i) sending the MSISDN directly to a core network of a wireless network system, (ii) obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN directly from the core network, (iii) sending the obtained IMSI address directly to the core network, and (iv) obtaining the Internet address corresponding to the IMSI directly from the core network.”

Claim 19: “(b) forwarding the request from the first MMS server directly to a second MMS server located in the second MMSE,” ... (d) forwarding, by the second MMS server, the obtained Internet address of the second MMS user agent directly to the first MMS server; and (e) forwarding, by the first MMS server, the obtained

Internet address directly to the first MMS user agent to enable the first MMS user agent to wirelessly deliver the multimedia message directly to the second MMS user agent using the obtained Internet address.”

Given the examiner’s statement in the March 2, 2010 Advisory Action that Caloud satisfied the disputed elements of Applicants’ independent claims because such claims did not clearly specify steps or functions as occurring “directly,” the foregoing amendments to independent claims 4, 7, 16, and 19 to specifically include numerous recitations of direct information transfer, Caloud fails to disclose or embody the elements of such claims quoted immediately above.

Further, contrary to the examiner’s allegation, Caloud does teach away from direct communication between a personal computer and a cell phone such that “[t]he gateway 128 is thus in a position to filter messages addressed to the terminal 108 and thus avoid undesirable messages¹⁶.” Caloud’s communications gateway 128 acts as an address translator and message forwarding system using memory 132a (Network Address Translator, “NAT.” col. 6, lines 34-39) in conjunction with Table 133 to match the public Internet address of mobile terminal 108 provided to caller set 101 in Step 203 to its private address and then forward the message to caller set 101’s private address. Further, Caloud’s communications gateway 128 acts as a firewall to block messages that do not have matching entries in Tables 133 and 134¹⁷. In the system described by Caloud, the caller set 101 is not provided with the IMSI or MSISDN number, and only is able to send messages to the communications gateway, which are first verified and then transferred to the mobile terminal 108 using the address translation in Table 133 within communications gateway 128. In other words, in the system described by Caloud, both the enablement of the call and the message itself must go through communications gateway 128. No part of Caloud’s disclosure teaches, suggests, or permits direct communication between two parties without use of an intervening communications gateway 128.

¹⁶ See Caloud, col. 8, lines 61-63.

¹⁷ See Caloud, col. 6, lines 34-39 and col. 6, lines 59-66

Thus, Caloud does not teach **direct wireless delivery** of a multimedia message from a first multimedia messaging service (MMS) user agent to a second MMS user agent, nor does Caloud disclose means for forwarding the obtained Internet address to the first MMS user agent to enable the first MMS user agent to wirelessly deliver the multimedia message directly to the second MMS user agent using the obtained Internet address.

Since each of Applicants' amended independent claims 4, 7, 16, and 19 include numerous recitations requiring direct transfer of information (see amended claims 4, 7, 16, and 19), and the cited art fails to disclose such features, the rejections of such claims under 35 U.S.C. 103 should be withdrawn. Since dependent claims inherently include all of the features of the claims on which they depend¹⁸, the rejections of all claims depending (whether directly or indirectly) from claims 4, 7, 16, or 19 should likewise be withdrawn.

b. The Cited Art Fails to Disclose Obtaining and Sending an IMSI Address as Required by Applicants' Claims 4 and 16 (and All Claims Depending Therefrom)

Applicants' independent claim 4 recites, *inter alia*, "means for obtaining an Internet address of the second MMS user agent directly from a core network based on the MSISDN of the second MMS user agent, if the MSISDN is not an Internet address of the second MMS user agent ... wherein the obtaining means includes ... means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN directly from the core network, means for sending the obtained IMSI address directly to the core network, and means for obtaining the Internet address corresponding to the IMSI directly from the core network."

Applicants' independent claim 16 similarly recites, *inter alia*, "(b) obtaining an Internet address of the second MMS user agent directly from a core network based on the MSISDN of the second MMS user agent, if the MSISDN is not an Internet address of the second MMS user agent ... wherein step (b) includes ... (ii) obtaining an international

¹⁸ 35 U.S.C. 112, fourth paragraph.

mobile subscriber identity (IMSI) address corresponding to the MSISDN directly from the core network, (iii) sending the obtained IMSI address directly to the core network, and (iv) obtaining the Internet address corresponding to the IMSI directly from the core network.”

In the March 2, 2010 Advisory Action, the examiner alleged that Caloud satisfies the disputed elements of claims 4 and 16 because “the limitations do not specify obtaining the internet address ‘directly’ from the core network.” Given the foregoing amendments to claims 4 and 16, the foregoing reasoning advanced by the examiner is moot. Since Caloud does not disclose obtaining the internet address ‘directly’ from the core network, the rejections of claims 4 and 16 premised on Caloud obtaining the internet address from the core network should be withdrawn.

In the Final Office Action dated December 11, 2009, the examiner alleged the following with respect to claims 4 and 16¹⁹:

"Vaananen discloses the claimed invention except for the international mobile subscriber identity (IMSI) address. **Caloud teaches** the means for sending the MSISDN to a core network (col. 4, lines 38-52, program memory 103 and interface circuits 104), **means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN from the core network** (FIG. 1, the resolution table 127 col. 6, lines 3-20, column 127B corresponds to an IMSI number and/or an MSISDN), means for sending the obtained IMSI address to the core network (col. 4, lines 38-52, program memory 103 and interface circuits 104) **and means for obtaining the Internet address corresponding to the IMSI from the core network** (FIG. 1, the resolution table 127, col. 6, lines 3-20). It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Caloud’s teaching into Vaananen’s system for the purpose of serving MMS User Agents across international MMSEs by interworking between international MMS service providers using IMSI, thereby increasing satisfaction/convenience for MMS users and revenues for MMS service providers.”²⁰

¹⁹ At page 8 of the December 11, 2009 Office Action, the examiner alleged that “[c]laims 16-18 are of the same scope as claims 4-6 respectively.” Applicant respectfully disagrees. Although claims 4 and 16 have similar scope, the scope of each claim is not identical – not least of which for the reason that claim 4 is a system claim, and claim 16 is a method claim. Although common arguments distinguishing independent claims 4 and 16 over the cited art are made herewith, Applicant reserves the right to present independent and distinct arguments for patentability of claims 4 and 16, if necessary or desirable to do so in the future.

²⁰ December 11, 2009 Office Action, pages 5-6.

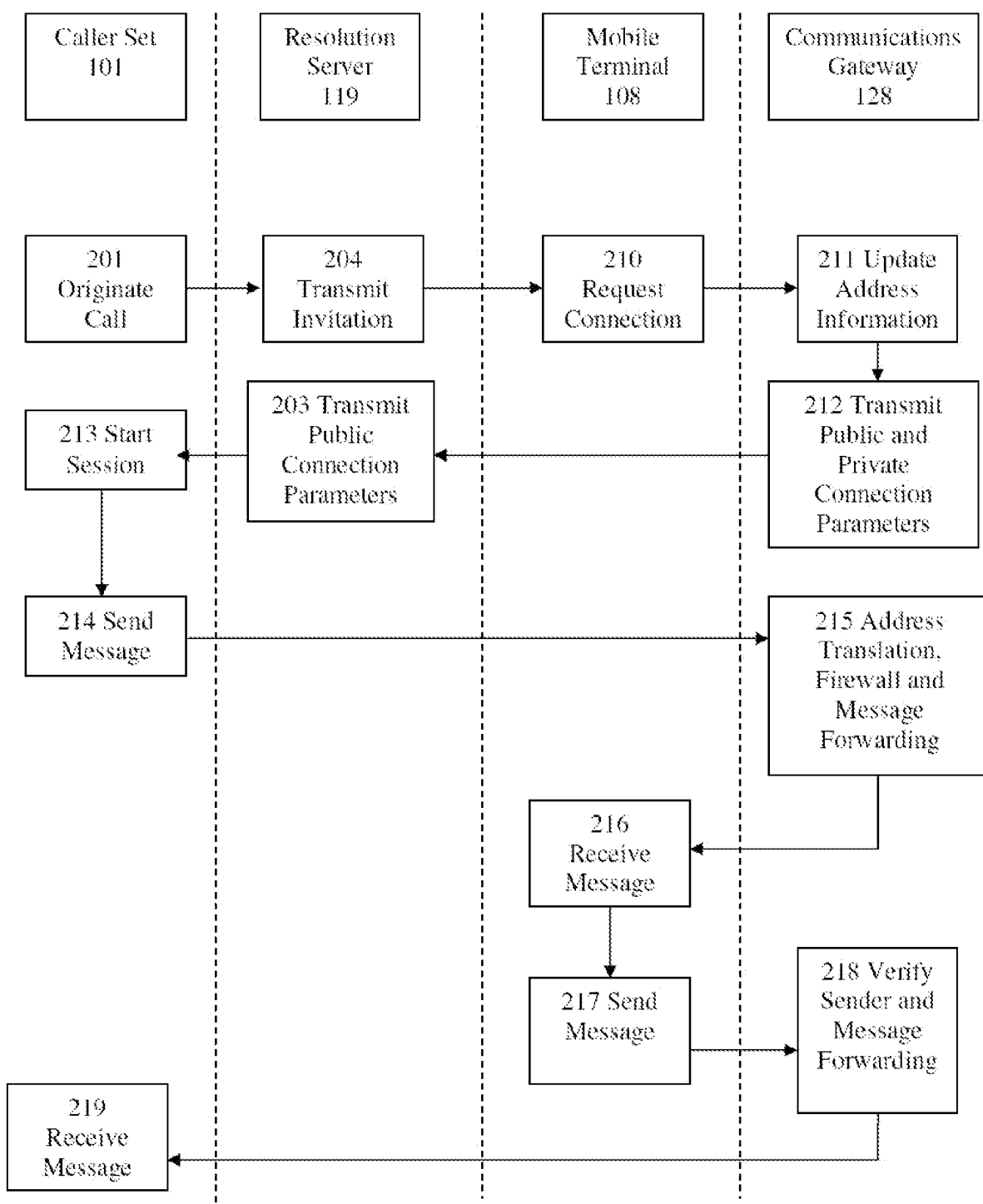
Applicants agree that Vaananen fails to disclose use of an IMSI address, but respectfully disagrees with the examiner's allegation that Caloud discloses the specific means utilizing an IMSI address recited in independent claim 4, or the specific method steps utilizing an IMSI address recited in independent claim 16. The examiner alleges that Caloud teaches "means for obtaining the Internet address corresponding to the IMSI from the core network (FIG. 1, the resolution table 127, col. 6, lines 3-20)²¹." Such allegation is incorrect, and, in fact, contradicts Caloud's avowed goals of **authorizing** communications between the two parties²² and **filtering** communications between the two parties²³.

A schematic and description of the steps of the method of the invention according to Caloud (Caloud, Figure 2) are provided below.

²¹ December 11, 2009 Office Action, page 6.

²² See, e.g., Caloud, col. 10, lines 14-19 ("[t]he gateway 218 then ascertains that the protocol used has been truly authorized by means of table 133 and the identifier of the sender of this frame, namely the private Internet address of terminal 108) and col. 6, lines 59-61 ("[t]he table 134 enables the fire wall function of the gateway 1238 to know which are the public address holders that are entitled to send out messages through gateway 128").

²³ See, e.g., Caloud, col. 8, lines 61-63: "[t]he gateway 128 is thus in a position to filter the messages addressed to the terminal 108 and thus avoid undesirable messages."



- Step 201: Caller set 101 sends a call connection initiation step to resolution server 119 including the symbolic address of mobile terminal 108 (the terminal to be connected)²⁴.
- Step 204: Resolution server 119 sends a message to the mobile terminal telephone number of mobile terminal 108 which is obtained from Table 127 including the identification of caller set 101 and the connection parameters²⁵.
- Step 210: Mobile terminal 108 sends a request to set up a connection to resolution server 119 through the Internet 106²⁶.
- Step 211: Communications gateway 128 updates Table 133 with mobile terminal 108's IMSI or telephone number (MSISDN) (133c) as well as its private internet address 133b and public internet address 133a²⁷. Table 134 is also updated in step 211 with the public Internet address of caller set 101²⁸.
- Step 212: Communications gateway 128 constitutes a message to resolution server 119 containing the connection parameters allocated by communications gateway 128 in step 211 including the public Internet address and the IMSI or telephone number of mobile terminal 108²⁹.
- Step 203: Resolution server 119 sends a message to caller set 101 with the public Internet address of mobile terminal 108 as allocated in Table 133³⁰.
- Step 213: Caller set 101 receives the message from Resolution server 119 and now has the public Internet address through which it can contact mobile terminal 108³¹.
- Step 214: A message (frame) to the public Internet address of mobile terminal 108 is sent from caller set 101 to communications gateway 128³².

²⁴ E.g., Caloud, col. 7, line 5-15.

²⁵ E.g., Caloud, col. 7, lines 45-53.

²⁶ E.g., Caloud, col. 8, lines 19-22.

²⁷ E.g., Caloud, col. 7, lines 35-45.

²⁸ E.g., Caloud, col. 8, lines 54-61.

²⁹ E.g., Caloud, col. 9, lines 9-16.

³⁰ E.g., Caloud, col. 9, lines 43-48.

³¹ E.g., Caloud, col. 9, lines 51-55.

³² E.g., Caloud, col. 9, lines 56-59.

- Step 215: Communications gateway 128 receives information (frame) from caller set 101 and using Table 133 and the public Internet address in the message, looks up the private internet address of mobile terminal 108 and transfers the message to mobile terminal 108³³.
- Step 216: Mobile terminal 108 receives message (frame).³⁴
- Step 217: Mobile terminal 108 sends message (frame) to communications gateway 218³⁵.
- Step 218: Communications gateway 128 checks message from mobile terminal 108 against address information in Table 133 to make sure it is authorized to send a message to caller set 101 and, if so, sends the message to caller set 101³⁶.
- Step 219: Message is received from mobile terminal 108 at caller set 101³⁷.

From this description, it is clear that Caloud's **caller set 101 (the originating terminal)** is **not provided the mobile terminal 108's (the receiving terminal) internet address directly from the core network** as alleged by examiner. Instead, sending of the internet address of the mobile terminal 108 to the caller set 101 of Caloud requires execution of the following steps:

1. Resolution server 119 sends a message to mobile terminal 108 (the receiving terminal) with the identification of caller set 101 (the originating terminal) (step 204).
2. Mobile terminal 108 authorizes the call (step 210).
3. Mobile terminal 108 updates table 133 in communications gateway 128 with its IMSI/MSISDN, private and public Internet address (step 211).
4. Communications gateway sends updated address information to resolution server 119 to update table 127 (step 212).
5. Resolution server 119 sends Internet address from table 127 to caller set 101.

³³ E.g., Caloud, col. 9, lines 62-66 to col. 10, lines 1-9.

³⁴ E.g., Caloud, col. 10, lines 2-4.

³⁵ E.g., Caloud, col. 10, lines 10-14.

³⁶ E.g., Caloud, col. 10, lines 14-24.

³⁷ E.g., Caloud, col. 10, lines 25-27.

It is therefore clear that Caloud fails to disclose “means for obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN **directly** from the core network, means for sending the obtained IMSI address **directly** to the core network, and means for obtaining the Internet address corresponding to the IMSI **directly** from the core network” as recited in Applicants’ claim 4, and that Caloud fails to disclose “(ii) obtaining an international mobile subscriber identity (IMSI) address corresponding to the MSISDN **directly** from the core network, (iii) sending the obtained IMSI address **directly** to the core network, and (iv) obtaining the Internet address corresponding to the IMSI **directly** from the core network” as recited in Applicant’s claim 16.

Moreover, any hypothetical modification of Caloud to include the foregoing features of Applicants’ claims 4 and 16 would require a reconstruction of the topology of Caloud and a change in the basic operating principles of Caloud. Any such modification would not support an obviousness rejection, consistent with the Federal Circuit’s holding that a suggestion to combine references **cannot require substantial reconstruction or redesign** of such references, **or change in basic operating principles** of a construction of a reference, to arrive at the claimed invention³⁸.

Since the examiner concedes that Vaananen fails to disclose any IMSI address, and it has been demonstrated above that Caloud fails to disclose the foregoing features of claims 4 and 16, the rejections of claims 4 and 16 under 35 U.S.C. 103 should be withdrawn. Since dependent claims inherently include all of the features of the claims on which they depend³⁹, the rejections of all claims depending (whether directly or indirectly) from claims 4 or 16 should likewise be withdrawn.

c. The Cited Art Fails to Disclose Obtaining an IMSI Address From a Home Location Register (HLR) as Recited in Applicants’ Claims 5 and 17

Applicant’s dependent claim 5 recites, *inter alia*: “the MSISDN is sent to a home location register (HLR) in the core network; the IMSI address is obtained from the HLR;

³⁸ *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (C.C.P.A. 1959).

³⁹ 35 U.S.C. 112, fourth paragraph.

the obtained IMSI is sent to a user database in the core network; and the Internet address is obtained from the user database.” Applicant’s dependent claim 17 similarly recites, *inter alia*: “at step (i) the MSISDN is sent to a home location register (HLR) in the core network; at step (ii) the IMSI address is obtained from the HLR; at step (iii) the IMSI is sent to a user database in the core network; and at step (iv) the Internet address is obtained from the user database.”

In the Final Office Action dated December 11, 2009, the examiner alleged that with respect to Applicants’ claims 5 and 17, Caloud teaches the following:

“The MSISDN is sent to a home location register (HLR) in the core network (col. 5, lines 39-54, the resolution server 119 is connected to the HLR of the GSM network through SS7/TCAP/MAP, this enables the interface between the SIP-NAT server and the HLR. Note that the HLR contains mobile information including MSISDN/IMSI is well known in the art.); the IMSI address is obtained from the HLR (col. 5, lines 39-45, the resolution server 119 is connected to the HLR of the GSM network, and col. 3, lines 32-45, the MSISDN/IMSI information are updated by the SIP-NAT server via interface with the HLR.); the obtained IMSI is sent to a user database in the core network (col. 3, lines 41-45, updates the resolution table); and the Internet address is obtained from the user database (col. 6, lines 3-5, a table could be considered as a preliminary database.). It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Caloud’s teaching into Vaananen’s system for the purpose of serving MMS User Agents across international MMSEs by interworking between international MMS service providers using IMSI, thereby increasing satisfaction/convenience for MMS users and revenues for MMS service providers.”⁴⁰

Applicants respectfully disagree with the examiner’s characterization of Caloud. At col. 5, lines 39-54 thereof, Caloud discusses the use of the HLR to verify the state of the terminal, **NOT** as part of the chain of steps for obtaining and transmitting the Internet address to the calling party. Specifically, Caloud states:

“... for a connection to the HLR of the GSM network, enabling access to the information on presence ... it must be noted that there may be an interface between the SIP/NAT server and the HLR by which it is **possible to verify the state of the terminal** and, if it is not attached to the GPRS network, to send back an error message stating “not contactable”⁴¹.

⁴⁰ December 11, 2009 Office Action, page 7.

⁴¹ Caloud, col. 5, lines 43-49

Utilization of the HLR by Caloud to verify the state of the terminal cannot be equated with use of a HLR to obtain the IMSI address from the HLR. Caloud therefore fails to disclose the above-identified features of claims 5 and 17.

Since the examiner has conceded that Vaananen fails to disclose use of any IMSI address, and it has been demonstrated that Caloud fails to disclose obtaining an IMSI address from a HLR as recited in Applicants' claims 5 and 17, the cited art fails to disclose all the elements of Applicant's claims.

In the March 2, 2010 Advisory Action at page 2, the examiner alleged the following:

"...it is well known in the art that the HLR contains mobile information including MSISDN/IMSI. Caloud teaches connecting the resolution server 119 to the HLR of the GSM network. One skilled in the art will have no difficulty using a HLR to obtain the IMSI address from the HLR."

MPEP 2144.03 ("Reliance on Common Knowledge in the Art or "Well Known" Prior Art") is reproduced in pertinent part below.

Official notice without documentary evidence to support an examiner's conclusion is permissible only in some circumstances. While "official notice" may be relied on, these circumstances should be rare when an application is under final rejection or action under 37 CFR 1.113. **Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known.** As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner **must be "capable of such instant and unquestionable demonstration as to defy dispute"** (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)).

It would not be appropriate for the examiner to take official notice of **facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known.** For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21. See also *In re Grose*, 592 F.2d 1161, 1167-68, 201

USPQ 57, 63 (CCPA 1979) ("[W]hen the PTO seeks to rely upon a chemical theory, in establishing a *prima facie* case of obviousness, it must provide evidentiary support for the existence and meaning of that theory."); *In re Eynde*, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) ("**[W]e reject the notion that judicial or administrative notice may be taken of the state of the art. The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice.**")."

(Emphasis added.)

Pursuant to MPEP 2144.03, Applicant hereby disputes the examiner's allegation that "it is well known in the art that the HLR contains mobile information including MSISDN/IMSI," and requests that the examiner either cite appropriate prior art supporting the alleged fact or withdraw the allegation. Such unsupported allegation does not provide proper basis for rejecting Applicants' claims 5 and 17.

For at least the foregoing reasons, withdrawal of the rejections of claims 5 and 17 under 35 U.S.C. 103 is warranted, and is respectfully requested.

6. Patentable Distinctions of Claims 7-9, 12, 19-21 and 24 Over the Cited Art

In the Final Office Action dated December 11, 2009, claims 7-9, 12, 19-21, and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable for obviousness over U.S. Patent No. 7,218,919 to Vaananen (hereinafter "Vaananen") in view of 3GPP TS 23,140 v4.4.0 (2001-09) (3rd Generation Partnership Project; Technical Specification Group Terminals; Multimedia Messaging Service (MMS); Functional description; Stage 2 (Release 4)) (hereinafter "3GPP MMS"). This rejection should be withdrawn for at least the reason that Vaananen in view of 3GPP MMS do not embody all elements of Applicants' claims 7-9, 12, 19-21, and 24.

a. 3GPP MMS fails to Disclose a First MMSE That is Different From a Second MMSE, and Communication Between Two MMS Servers.

In the Final Office Action dated December 11, 2009, the examiner alleged the following, with regard to Applicants' claims 7 and 19:

"Vaananen discloses the claimed invention except for the first MMSE is different from a second MMSE, and communication between two MMS servers. However, 3GPP MMS discloses interworking between different MMSEs including communications between MMS servers based on SMTP (see clauses 7.7, 8.4 and Figure 5.). It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate 3GPP MMS' teaching into Vaananen's system for the purpose of serving MMS User Agents across different MMSEs by interworking between different MMS service providers, thereby increasing satisfaction/convenience for MMS users and revenues for MMS service providers."⁴²

Later, in the March 2, 2010 Advisory Action, the examiner alleged the following with respect to Applicant's claims 7 and 19: **"the statement 'a first MMSE that is different from a second MMSE' is not in any claim" such that Applicants' "argument is moot"** regarding this point raised in the Response filed on February 11, 2010.

The examiner is hereby pointed to the text of the December 11, 2009 Office Action, pages 9-10, as reproduced above on this page in block indent form. There, the examiner expressly stated that **"Vaananen discloses the claimed invention except for the first MMSE is different from a second MMSE**, and communication between two MMS servers." Given such statement by the examiner in the December 11, 2009 Office Action, argument establishing the failure of the art to disclose "a first MMSE that is different from a second MMSE" is highly relevant to the claimed invention. The examiner is further pointed to the preambles of claims 7 and 19 reciting "a first multimedia messaging service (MMS) user agent located in a first multimedia messaging service environment (MMSE)" and "a second MMS user agent located in a second MMSE." Separate recitation of the first MMSE and second MMSE in claim 7 and 19 establishes that such MMSEs must differ (since a single MMSE would not satisfy all elements of this claim).

⁴² December 11, 2009 Office Action, pages 9-10.

The examiner's summarial dismissal of Applicants' arguments that the art fails to disclose a first MMSE that is different from a second MMSE is therefore improper. The examiner is invited to further review Applicants' claims and the prosecution record before disregarding arguments as moot.

Further, with respect to claims 7 and 19, Applicants respectfully disagree with examiner's characterization of 3GPP MMS in application to such claims. 3GPP MMS discloses architecture and operation of MMS networks. Such architecture *requires* use of a "MMS Relay/Server responsible for storage and handling of incoming and outgoing messages and for the transfer of messages between different messaging systems⁴³." The mandatory nature of such a MMS Relay/Server is noted at page 18 of 3GPP MMS, which states: "[w]hen a user intends to send a MM to one or several destinations the MM shall be submitted to the originator MMS Relay/Server." The routing function of the MMS Relay/Server is further emphasized at page 19 of 3GPP MMS, which states:

"Upon reception of an MM from an originator MMS User Agent ... [a]
MMS Relay/Server:

* * *

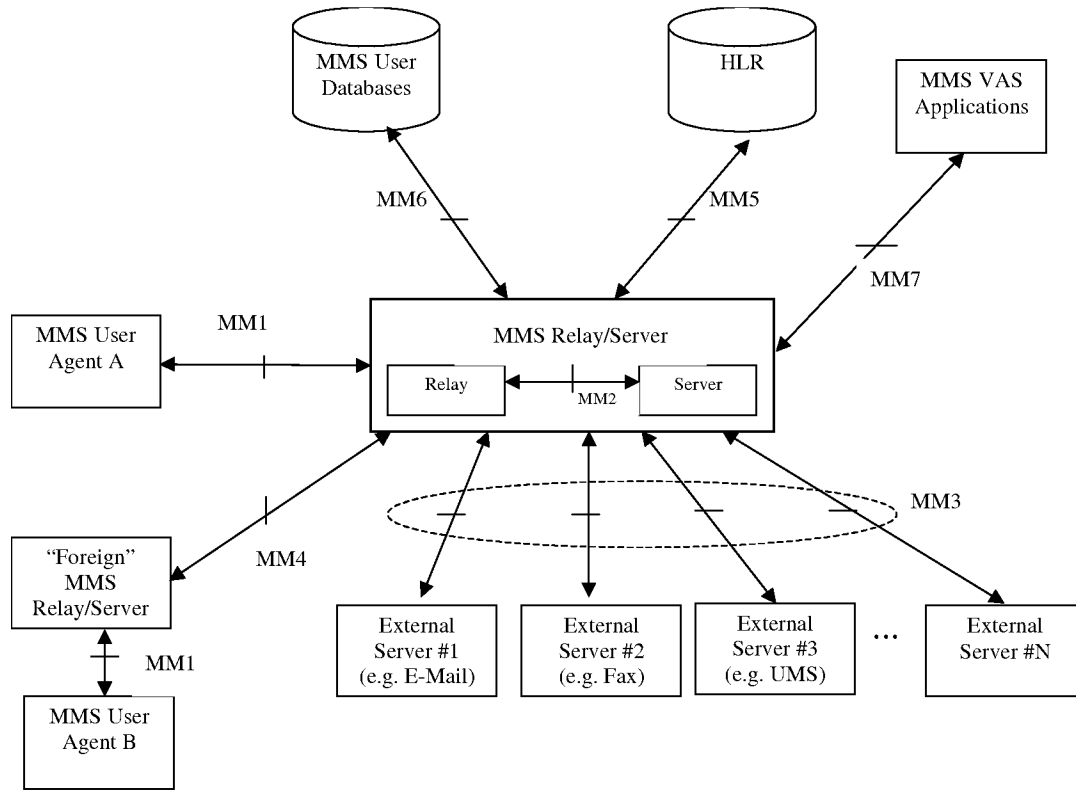
- is responsible for **retaining the MM until the earliest desired time of delivery**, if the optional feature of earliest time of delivery is supported by the originator MMS Relay/Server. If this feature is not supported then the MM is immediately routed forward, [and]

* * *

- is responsible to **route the MM towards the MM recipients**"

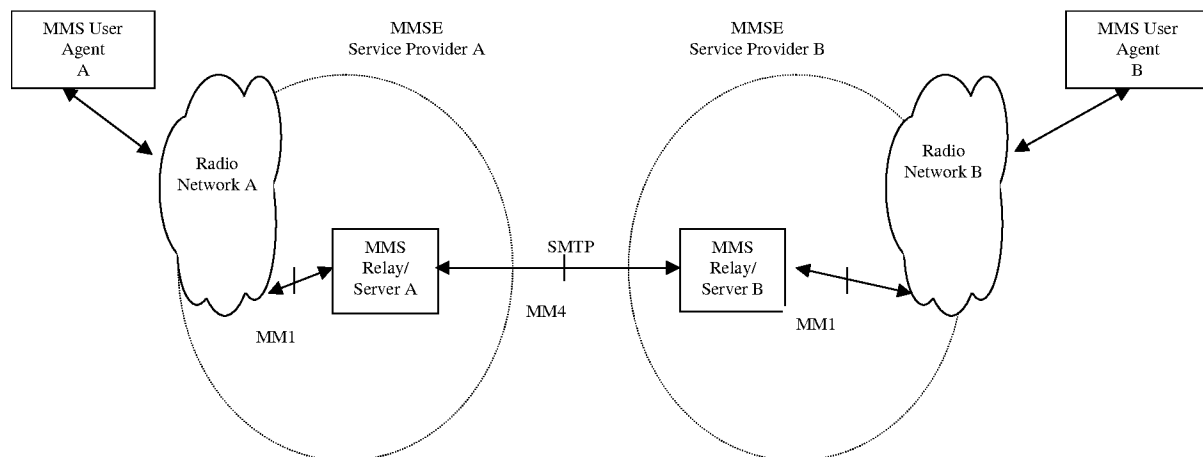
MMS Reference Architecture consistent with the foregoing text is disclosed in 3GPP MMS at Figure 4 thereof, as reproduced below.

⁴³ 3GPP MMS, page 13.



The foregoing excerpts from 3GPP MMS indicate that the MMS Relay/Server provides a primary message storage and routing function, and that all messages must be routed through a MMS Relay/Server.

3GPP MMS further discloses that messages may be transferred between multiple MMSEs, with reference to Figure 5 thereof, as reproduced below.



The foregoing Figure of 3GPP MMS again relies upon a MMS Relay/Server within each MMSE to provide a primary message routing and storage function.

Nothing in 3GPP MMS teaches or suggests direct wireless delivery of a multimedia message from a first multimedia messaging service (MMS) user agent located in a first multimedia messaging service environment (MMSE) to a second MMS user agent located in a second MMSE, the system. In fact, as discussed above, 3GPP MMS specifically requires that communication from a MMS user agent A in a first MMSE to a MMS user agent B in a second MMSE go through the MMSE relay/server - not directly from user agent A in a first MMSE to a user agent B in a second MMSE. This is in direct contrast to Applicants' claims 7 and 19, as supported in part by Applicants' FIG. 6 (reproduced below).

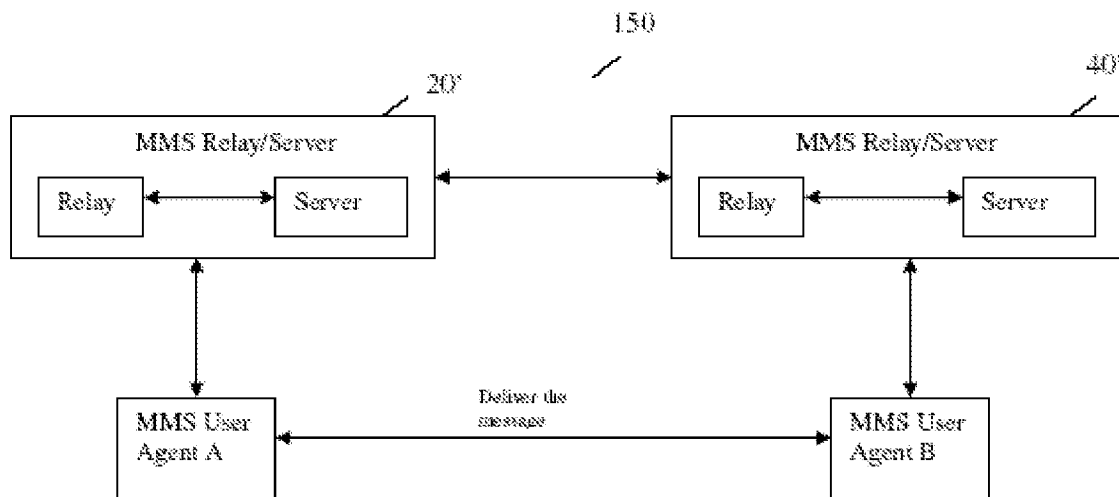


FIG. 6

Accordingly, the proposed combination of 3GPP MMS and Vaananen fails to embody all elements of Applicants' independent claims 7 or 19. Moreover, any hypothetical modification of 3GPP MMS to eliminate a MMS Relay/Server would require a change in basic operating principles of 3GPP MMS (or substantial

reconstruction or redesign of the design embodied in such reference). The Federal Circuit that such changes cannot support suggestion to combine or modify references to arrive at the claimed invention⁴⁴.

For at least the foregoing reasons, withdrawal of the rejections of Applicants' independent claims 7 and 19 is warranted, and is respectfully requested. Because dependent claims inherently include all the features of the claims on which they depend⁴⁵, all claims depending (whether directly or indirectly) from independent claims 7 or 19 are likewise patentably distinguished over the cited art. Withdrawal of the rejections of all claims depending from independent claims 7 or 19, including at least claims 8, 9, 12, 20, 21, and 24 is warranted, and is respectfully requested.

6. Patentable Distinctions of Dependent Claims 10-11 and 22-23 Over the Cited Art

In the Final Office Action dated December 11, 2009, claims 10-11 and 22-23 were rejected under 35 U.S.C. 103(a) as being unpatentable for obviousness over Vaananen and 3GPP MMS, further in view of Caloud. Such rejections are inapposite to Applicants' claims.

a. Dependency on Independent Claims 7 and 19

Claims 10-11 and 22-23 depend from independent claims 7 and 19, respectively. Patentable distinctions of claims 7 and 16 over the cited art have been discussed hereinabove. Because dependent claims inherently include all the features of the claims on which they depend⁴⁶, all claims depending (whether directly or indirectly) from independent claims 7 or 19 are likewise patentably distinguished over the cited art for at least the same reasons articulated in connection with claims 7 and 19 hereinabove. Accordingly, withdrawal of the rejections of all claims depending from independent

⁴⁴ *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (C.C.P.A. 1959).

⁴⁵ 35 U.S.C. 112, fourth paragraph.

⁴⁶ 35 U.S.C. 112, fourth paragraph.

claims 7 or 19, including at least claims 10-11 and 22-23, is warranted, and is respectfully requested.

b. 3GPP MMS Fails to Disclose the First MMSE is Different From a second MMSE, and communication between two MMS servers.

In the Final Office Action dated December 11, 2009, with regard to claims 10 and 22, the examiner alleged that Vaananen and 3GPP MMS disclose the claimed invention except for the international mobile subscriber identity (IMSI) address, but that it would have been obvious ... to incorporate Caloud's teaching (regarding sending MSISDN to a core network and obtaining an IMSI address, sending the IMSI address to the core network, and obtaining the Internet address corresponding to the IMSI address) into Vaananen's and 3GPP MMS' system for the purpose of serving MMS User Agents across international MMSEs by interworking between international MMS service providers using IMSI⁴⁷.

It has been previously demonstrated herein (in connection with the rejections of claims 7 and 19) that 3GPP MMS fails to disclose the first MMSE is different from a second MMSE. Such reasons are hereby incorporated by reference with respect to claims 10 and 22. Accordingly, withdrawal of the rejections of dependent claims 10 and 22 is warranted, and is respectfully requested.

c. The Cited Art Fails to Disclose Obtaining and Sending an IMSI Address as Required by in Applicant's Claims

In the Final Office Action dated December 11, 2009, with regard to claims 10 and 22, the examiner alleged that Vaananen and 3GPP MMS disclose the claimed invention except for the international mobile subscriber identity (IMSI) address, but that it would have been obvious ... to incorporate Caloud's teaching (regarding sending MSISDN to a core network and obtaining an IMSI address, sending the IMSI address to the core network, and obtaining the Internet address corresponding to the IMSI address) into Vaananen's and 3GPP MMS' system for the purpose of serving MMS User Agents

⁴⁷ December 11, 2009 Office Action, pages 11-12.

across international MMSEs by interworking between international MMS service providers using IMSI⁴⁸.

It has been previously established hereinabove that neither Vaananen nor Caloud discloses obtaining and sending an IMSI address as required by Applicants' claims. Such arguments are hereby incorporated by reference with respect to claims 10 and 22. 3GPP MMS fails to remedy the deficiency of Vaananen and Caloud in disclosing such feature. For at least the reason that the cited art fails to disclose obtaining and sending an IMSI address as required by claims 10 and 22, the rejections of such claims under 35 U.S.C. 103 should be withdrawn.

d. Vaananen fails to disclose a home location register (HLR).

In the Final Office Action dated December 11, 2009, the examiner alleged with regard to claims 11 and 23 that Caloud discloses obtaining the IMSI address from the HLR. It has been previously demonstrated herein (e.g., in connection with claims 5 and 17) that neither Vaananen nor Caloud discloses obtaining an IMSI address from the HLR. Such arguments are hereby incorporated by reference with respect to claims 11 and 23. 3GPP MMS fails to remedy the foregoing deficiency of Vaananen and Caloud in disclosing such feature. For at least the reason that the cited art fails to disclose obtaining an IMSI from a HLR as required by claims 11 and 23, the rejections of such claims under 35 U.S.C. 103 should be withdrawn

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of Applicants' pending claims are in condition for allowance. Issuance of a notice of allowance are earnestly solicited. Should any issues remain that may be amenable to telephonic resolution, the examiner is invited to telephone the undersigned attorneys to resolve such issues as expeditiously as possible.

⁴⁸ December 11, 2009 Office Action, pages 11-12.

In the event there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

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